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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
2126	12

2126

12

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/706,948	Applicant(s) HODJAT, BABAK	
Examiner Li B. Zhen	Art Unit 2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

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DETAILED ACTION

1. Claims 1 – 18 are pending in the application.

Allowable Subject Matter

2. Claims 11 – 18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Specification

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code [p. 2 – 4]. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
4. Applicant referred to a plurality of references in the specification: p. 1, line 20 – p. 5, line 2. These references are not checked. The examiner requests a copy of the references so that they can be fully considered.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 – 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation “comprising the steps of a first one of said agents” [line 3], and “querying agent each of a plurality of agents” [line 6]. It is unclear what performs the steps of a first one of the agents and what queries each of a plurality of agents. In addition, examiner notes that the hierarchical structure of the agents is not clearly defined. For example, it is unclear how the upchain agent, first agent and the plurality of downchain agents are positioned in the hierarchy. Claim 1 also recites “a network of agents” [line 2]. It is unclear if the upchain agent, first agent and the plurality of downchain agents are part of the network of agents or not.

8. Claim 11 recites the limitation “in response to said first query of said first agent” [line 9]. It is unclear if the first agent makes the first query or if the first query is made to the first agent. According to the specification, as best understood by the examiner, it appears the first query is made to the first agent. For the purpose of examination, the examiner will assume “in response to said first query to said first agent.”

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 6,144,989 [hereinafter Hodjat989] in view of Cheyer.

11. As to claim 1, Hodjat989 teaches a computer-implemented method for use in deriving intent from a subject message, for use further with a network of agents each having a view of its own domain of responsibility [claim 1, lines 1 – 6], comprising the steps of:

receiving from an upchain agent a query inquiring whether at least part of said subject message is within the domain of responsibility of said first agent [claim 1, lines 8 – 10];

querying each of a plurality of agents of said first agent whether the queried agent considers at least part of said subject message to be in the queried agent's domain of responsibility [claim 1, lines 7 – 10];

receiving response from said agents downchain of said first agent [claim 4, lines 3 – 4].

As to natural language interpretation, a plurality of agents each immediately downchain of the first agent, responding tentatively whether the at least part of a message is with the natural language interpretation domain of the first agent, after the first agent receives at least one responds from the agents immediately downchain of the first agent, but before the first agent receives all responses from the agents immediately downchain of the first agent, these limitation are taught by Cheyer, see the rejection of claim 1 below.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent No. 6,260,059 to Ueno [cited in previous office action] in view of U.S. Patent No 6,691,151 to Cheyer.

14. As to claim 1, Ueno teaches the invention substantially as claimed including a subject message [messages] for use with a network of agents [knowledge provider agents which are mutually connected for exchange of messages; column 10, lines 60 – 67] each having a view of its own domain of responsibility [knowledge base and/or rule

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base information relating to any particular subject, stored at a knowledge provider agent; col. 2, lines 49 – 54], comprising:

receiving from an upchain agent [“User” is the identifier of the requesting user; column 12, lines 22 – 23] a query [a string “ask”, signifying that this is an information request message; column 12, lines 20 – 25] inquiring whether at least part of the subject message is within the domain of responsibility of the first agent [a message matching section 102-1 which is capable of registering a received message... and which compares first the entire message, then specific parts of the message, with predetermined parts of data which are held in the script storage section 103; column 11, lines 10 – 40];

querying at least one agent downchain [propagation destination agents] of the first agent whether the queried agent considers at least part of the subject message [col. 11, lines 10 – 40] to be in the queried agent's domain of responsibility [the received message are supplied to the propagation message generating section 104, which originates a propagation message... containing the received message contents but is addressed to each of a predetermined plurality of other ones of the agents... such predetermined other ones of the agents will be referred to in the following as the propagation destination agents; column 11, lines 49 – 60];

responding to the upchain agent tentatively whether at least part of the subject message is within the domain of responsibility of the first agent [agentA generates a response message addressed to the requesting user, containing the information that has been requested; col. 13, lines 1 – 15; see Fig. 2] before the first agent receives all

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responses from the agents downchain of the first agent [agentC achieves successful matching of the message contents... it generates a response message that is addressed to the agent which originated the received propagation message; col. 12, line 20 – col. 13, line 15; see Fig. 2]. Examiner notes that the first agent [agentA] does not receive all responses from all the downchain agents [agentB does not send a response to agentA] before it sends a responds to the upchain agent [user].

15. Ueno teaches [col. 2, lines 49 – 54] an agent that contains knowledge base and/or rule base information relating to any particular subject, but does not specifically teach a natural language interpretation and a plurality of agents immediately downchain of a first agent.

However, Cheyer teaches a network of agents [distributed agent system 300, Fig. 3; col. 6, lines 30 – 43] with natural language interpretation [ask 424 a natural language (NL) agent 426 to translate the query into ICL 18. To accomplish this task, the NL agent 426 may itself need to make requests of the agent community to resolve unknown words; col. 8, lines 30 – 45] including a first agent [facilitator agent 310, Fig. 3; col. 30 – 54] and a plurality of agents [a plurality of agents 320, Fig. 3; col. 30 – 54] each immediately downchain of the first agent [agent 310 is in essence the "parent" facilitator for its "children" agents 320; col. 3, lines 30 – 54], responding tentatively whether the at least part of a message is with the natural language interpretation domain of the first agent [Once the responses have been received, the facilitator determines whether the original requested goal has been completed in a step 1118. If the original requested goal has not been completed, the facilitator recursively repeats

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the operations 1106 through 1116; col. 19, lines 5 – 32], after the first agent receives at least one responds from the agents immediately downchain of the first agent [certain requests may generate multiple responses that generate additional sub-goals; col. 19, lines 5 – 32], but before the first agent receives all responses from the agents immediately downchain of the first agent [certain sub-goals may be sent to separate agents in parallel, while transmission of other sub-goals may be postponed until receipt of particular answers; col. 19, lines 5 – 32].

16. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of natural language interpretation and a plurality of agents immediately downchain of a first agent as taught by Cheyer to the invention of Ueno because this provides a Unified Messaging system with an emphasis on ubiquitous access and dynamic presentation of the information and services supported by an agent community [col. 4, lines 60 – 65 of Cheyer].

17. As to claim 2, Ueno as modified teaches the first agent responding further to the upchain agent whether at least part of the subject message is within the natural language interpretation domain of the first agent, after the first agent receives at least one additional response from the agents immediately downchain of the first agent [agentC achieves successful matching of the message contents with its script and thereby obtains the necessary response information set, it generates a response message that is addressed to the agent which originated the received propagation message...when this message is received by agentA, that agent generates a response

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message addressed to the requesting user; column 12, line 54 - column 13, lines 10 of Ueno].

18. As to claims 3 and 4, Ueno as modified teaches the first agent responding in response to a second query received by the first agent from the upchain agent inquiring whether at least part of the subject message is within the natural language interpretation domain of the first agent [matching success is achieved for each of said first, second and third matching operations, generating a response message having said response information set as the content portion thereof and having the sender identifier of said received request message as the destination identifier thereof, and transmitting said response message via said network; column 3, lines 39 – 56 of Ueno].

19. As to claim 5, Ueno as modified teaches the first query including a first depth-of-search indication ["Count" is a number whose initial value determines the number of agents from which response information sets are to be obtained; column 21, lines 40 – 67 of Ueno];

resolving any conflicting responses from the queried agents to identify a prevailing one of the immediately downchain agents to whom the subject message should be passed [each agent 600 includes a processing information request message generating section 507; column 20, line 61 – column 21, line 13 of Ueno]; and

instructing the prevailing agent to handle at least part of the subject message [If agentC achieves successful matching of the message contents with its script and

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thereby obtains the necessary response information set, it generates a response message that is addressed to the agent which originated the received propagation message; column 12, lines 54 – 60 of Ueno].

20. As to claim 6, Ueno teaches determining whether a depth of the particular agent [count value] exceeds the depth-of search indication [threshold value], and if so, disclaiming the subject message [since the count value at this stage reached the threshold value, agent2 will generate a response message conveying all of the appended response information sets, to be sent back to the "Sender" identified in the information collection message; column 23, lines 14 – 21].

21. As to claim 7, Ueno as modified teaches determining whether at least part of the subject message is within the particular agent's natural language interpretation domain [see claim 1], and if so, returning a response to the first agent claiming at least part of the message [agent1...executes the next line of the script, and so performs successive Rule and Knowledge matching processing as described for the first embodiment, to obtain the response information set; column 22, lines 18 – 50 of Ueno].

22. As to claim 8, Ueno as modified determining whether at least part of the subject message is within the particular agent's natural language interpretation domain [see claim 1], and where the subject message is not within the particular agent's natural language interpretation domain but the particular agent has further agents downchain of

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the particular agent, querying at least one of the further agents whether the further agent considers at least part of the subject message to be in the further agent's natural language interpretation domain [if as a result of the matching processing it is found that the required knowledge information is not available, then the contents of the received message are supplied to the propagation message generating section 104, which originates a propagation message...addressed to each of a predetermined plurality of other ones of the agents; column 11, lines 48 – 62 of Ueno]

23. As to claim 9, Ueno as modified teaches after querying the agents immediately downchain of the originating agent in the network a first time [propagation destination agents; column 11, lines 49 – 60 of Ueno; see claim 1], querying the agents immediately downchain of the originating agent a second time [re-executing the second matching operation] whether the queried agent considers at least part of the subject message to be in the queried agent's natural language interpretation domain [repetitively executing operations of...when the second matching operation is not successful, reading out one of the alias character strings for one of the data fields...replacing a character string which is currently defined for the field in the content format descriptor...and re-executing the second matching operation; col. 6, lines 1 – 31 of Ueno];

24. As to claim 10, this is rejected for the same reasons as claim 6 above.

Conclusion

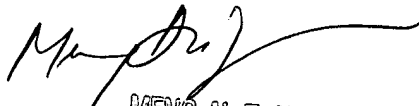
25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2126

lbz
June 3, 2004


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